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# R 936 Compact Litronic

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## LIEBHERR

Crawler excavator

**Generation**

6.1

**Operating weight**

34,800 kg / 76,720 lb

**Engine**

255 HP / 190 kW

Tier 4 Final

**Bucket capacity**

0.55 – 2.15 m<sup>3</sup> /

0.72 – 2.81 yd<sup>3</sup>



# Experience the progress R 936 Compact

## Maintenance

- Servicing concept, with service points accessible from ground level
- Concept for lateral access to uppercarriage and large maintenance platform
- Engine oil, hydraulic oil, fuel and urea (diesel exhaust fluid) levels visible on the display

## Equipment

- Large choice of sticks
- Longer lifespan of components and higher productivity thanks to automatic centralized lubrication system (option)
- Safety check valves for hoist and stick cylinders as standard

## Safety

- Panoramic visibility with no obstructions and camera on the rear and the right side for enhanced safety
- Tilttable console for easy and safe access to cab
- ROPS-certified cab structure
- Emergency exit via the rear cab window
- Right window and windshield in laminated and tinted glass





## Comfort

- Spacious, air-conditioned work space
- Airsprung seat with vertical and longitudinal suspension
- Easy-to-use high resolution 7" color touchscreen
- 76 mm / 3" orange seat belt
- New LED lighting as standard

## Engine

- New US EPA Tier 4 Final engine
- Automatic engine idling / speed increase, controlled via joystick sensors

## Undercarriage

- Robust, reliable X-frame undercarriage, easy to secure thanks to its integrated eyelets
- Easy maintenance
- Maintenance-free travel gear and track rollers with lifetime lubrication for easy maintenance
- Extra storage as an option

# Technical data



## Engine

<b>Rating</b>	
per SAE J1349	255 HP (190 kW) at 1,800 rpm
per ISO 9249	258 HP (190 kW) at 1,800 rpm
<b>Torque</b>	1,337 Nm at 1,350 rpm / <b>986 lbf ft at 1,350 rpm</b>
<b>Model</b>	Liebherr D944 A7-24
<b>Type</b>	4 cylinder in-line
Bore	130 mm / <b>5.1 in</b>
Stroke	150 mm / <b>5.9 in</b>
Displacement	8.0 l / <b>488 in<sup>3</sup></b>
<b>Engine operation</b>	4-stroke diesel Common-Rail Turbo-charged and after-cooler
<b>Exhaust gas treatment</b>	Tier 4 Final DOC + SCR Passive regeneration by thermo management
<b>Cooling system</b>	Water-cooled and oil cooler, after-cooled and fuel cooled
<b>Air cleaner</b>	Dry-type air cleaner with pre-cleaner
<b>Fuel tank</b>	450 l / <b>119 gal</b>
<b>Urea tank</b>	46 l / <b>12 gal</b>
<b>Electrical system</b>	
Voltage	24 V
Batteries	2 x 180 Ah / 12 V
Alternator	Three-phase current 28 V / 140 A
Engine idling	Sensor controlled



## Hydraulic controls

<b>Power distribution</b>	Via control valves with integrated safety valves, simultaneous and independent actuation of undercarriage, swing drive and equipment
<b>Servo circuit</b>	
Equipment and swing	Proportional via joystick levers
Travel	- Proportional control via foot pedals or removable levers - Speed pre-selection
<b>Additional functions</b>	Proportional regulation via foot pedals or mini-joystick



## Hydraulic system

<b>Hydraulic system</b>	Positive Control hydraulic system. Demand-based, double independent pump flows Features high system dynamics and sensitivity provided by integrated system controlling
<b>Hydraulic pump</b>	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 245 l/min. / <b>2 x 65 gpm</b>
Max. pressure	380 bar / <b>5,511 psi</b>
<b>Pump management</b>	Electronic pump management via the integrated system controlling (CAN-BUS) synchronous to the control block. Open circuit for the rotation
<b>Hydraulic tank</b>	290 l / <b>77 gal</b>
<b>Hydraulic system</b>	max. 520 l / <b>max. 137 gal</b>
<b>Hydraulic oil filter</b>	1 main return filter with integrated partial micro filtration (10 µm / <b>1,250 mesh</b> )
<b>Cooling system</b>	Compact cooler, consisting of a water cooler, with hydraulic oil cooler, gearbox oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
<b>MODE selection</b>	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum digging performance and heavy-duty jobs
<b>Engine speed and performance setting</b>	Stepless adjustment of engine output and hydraulic power via engine speed



## Swing drive

<b>Drive</b>	Liebherr swashplate motor with integrated brake valve and torque control
<b>Transmission</b>	Liebherr compact planetary reduction gears
<b>Swing ring</b>	Liebherr, sealed race ball bearing swing ring, internal teeth
<b>Swing speed</b>	0 - 10.0 rpm stepless
<b>Swing torque</b>	106 kNm / <b>78,182 lbf ft</b>
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)



## Cab

<b>Cab</b>	ROPS safety cab structure (roll-over protection system according to ISO 12117-2:2008) with windscreen, totally or partially retractable (only upper part), under cab roof, LED work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, laminated right hand side and roof windows, all windows tinted, separate extensible window shades for the sunroof window and windscreen, cigarette lighter and 24 V plug, 12 V plug, cup holder
<b>Operator's seat</b>	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination (adjustable in length, height and inclination), seat heating as standard
<b>Arm consoles</b>	Oscillating consoles with seat, tiltable console left
<b>Operation and displays</b>	Large high-resolution operating unit, intuitive, color display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
<b>Air-conditioning</b>	Automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu. Recirculated air and fresh air filters can be easily replaced and are accessible from the outside. Heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures
<b>Noise emission</b>	
ISO 6396	71 dB(A) = $L_{pA}$ (inside cab)
2000/14/EC	105 dB(A) = $L_{WA}$ (surround noise)



## Undercarriage

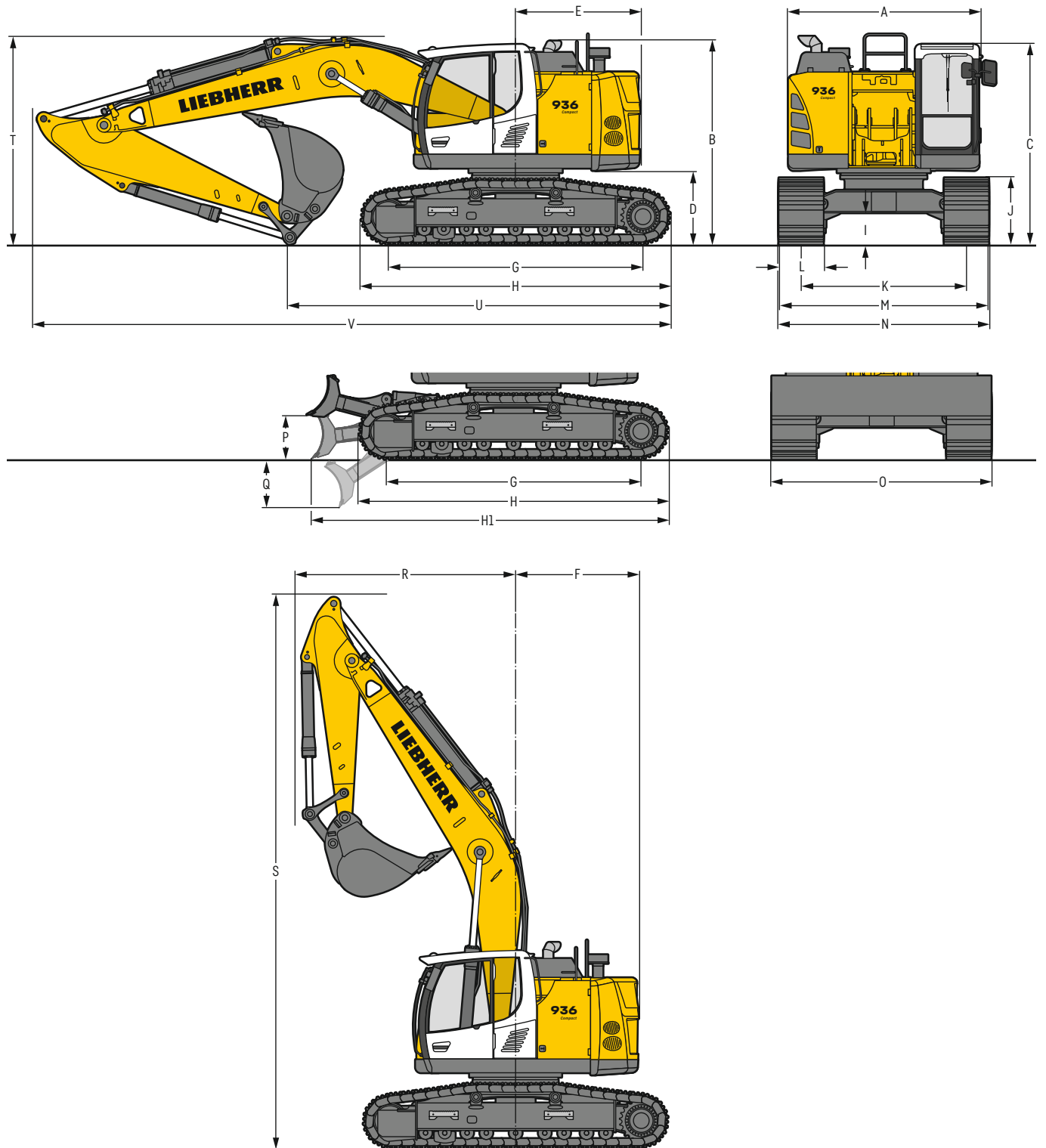
<b>LC</b>	Gauge 2,740 mm / <b>9'</b>
<b>Drive</b>	Liebherr swashplate motor with brake valves on both sides
<b>Transmission</b>	Liebherr compact planetary reduction gear
<b>Maximum travel speed</b>	2.6 km/h / <b>1.6 mph</b> low range 4.2 km/h / <b>2.6 mph</b> high range
<b>Drawbar pull on crawler</b>	325 kN / <b>73,060 lbf</b>
<b>Track components</b>	D7, maintenance-free
<b>Track rollers / Carrier rollers</b>	9 / 2
<b>Tracks</b>	Sealed and greased
<b>Track pads</b>	Triple grouser
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)
<b>Brake valves</b>	Integrated into travel motor
<b>Lashing eyes</b>	Integrated



## Equipment

<b>Hydraulic cylinders</b>	Liebherr cylinders with seal and guidance systems
<b>Bearings</b>	Sealed, low maintenance
<b>Lubrication</b>	Liebherr central lubrication system

# Dimensions



		LC	mm / ft in				LC with blade	mm / ft in
A	Uppercarriage width		3,000** / 9'10***					3,000** / 9'10***
B	Uppercarriage height		3,200 / 10' 6"					3,200 / 10' 6"
C	Cab height		3,155 / 10' 4"					3,155 / 10' 4"
D	Counterweight ground clearance		1,160 / 3'10"					1,160 / 3'10"
E	Rear-end length		1,975 / 6' 6"					1,975 / 6' 6"
F	Tail swing radius		1,975 / 6' 6"					1,975 / 6' 6"
G	Wheelbase		3,990 / 13' 1"					3,990 / 13' 1"
H	Undercarriage length		4,845 / 15'11"					4,845 / 15'11"
H1	Undercarriage length with blade		-					5,600 / 18' 4"
I	Undercarriage ground clearance		500 / 1' 8"					500 / 1' 8"
J	Track height		1,055 / 3' 6"					1,055 / 3' 6"
K	Track gauge		2,740 / 9'					2,740 / 9'
L	Track pad width		600 / 24"	700 / 28"	800 / 31"	900 / 35"		600 / 24"
M	Width over tracks		3,340 / 10'11"	3,440 / 11' 3"	3,540 / 11' 7"	3,640 / 11'11"		3,340 / 10'11"
N	Width over steps		3,340 / 10'11"	3,340 / 10'11"	3,540* / 11' 7**	3,540* / 11' 7**		3,340 / 10'11"
O	Blade width		-					3,350 / 11'
P	Max. blade height		-					705 / 2' 4"
Q	Max. blade depth		-					755 / 2' 6"

\* width with removable steps

\*\* without door stop device and spacer

		Stick length	Mono boom 6.20 m / 20'4"			
		m / ft in	direct mounting			
			mm / ft in			
R	Front swing radius		3,500 / 11' 6"			
S	Height with boom up		8,800 / 28'10"			
T	Boom height	2.50 / 8'2"	3,200 / 10' 6"			
		3.20 / 10'6"	3,250 / 10' 8"			
		3.70 / 12'2"	3,150 / 10' 4"			
U	Length on ground	2.50 / 8'2"	7,000 / 23'			
		3.20 / 10'6"	6,000 / 19' 8"			
		3.70 / 12'2"	5,300 / 17' 5" / 5,200* / 17'1**			
V	Overall length		10,000 / 32'10" / 10,800* / 35'5**			
	Bucket		1.60 m <sup>3</sup> / 2.09 yd <sup>3</sup>			

\* with blade

## Transport dimensions

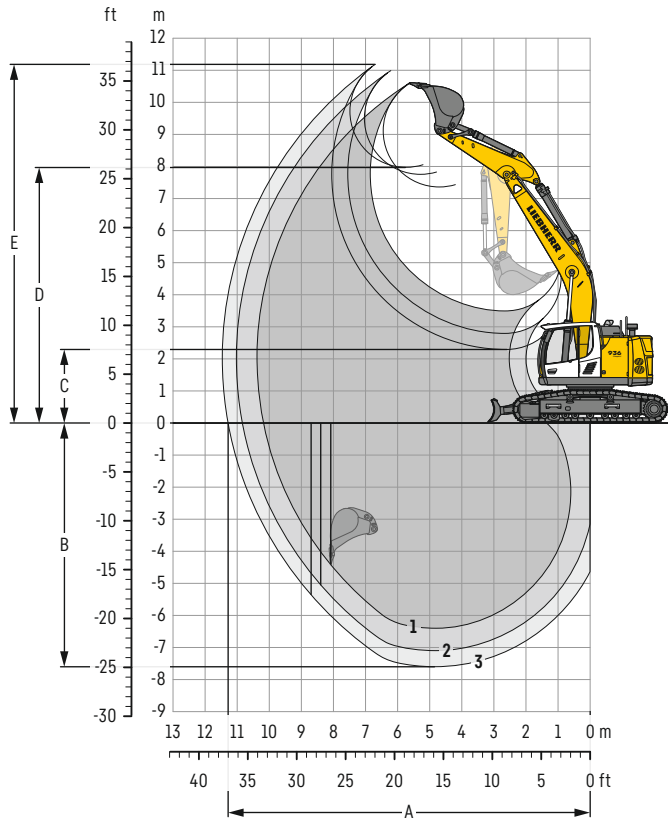
### removable elements disassembled

	Undercarriage	Mono boom 6.20 m / 20'4"			
		mm / ft in			
Pad width		600 / 24"	700 / 28"	800 / 31"	900 / 35"
Transport width	LC	3,340 / 10'11"	3,440 / 11' 3"	3,540 / 11' 7"	3,640 / 11'11"
	LC with blade	3,340 / 10'11"	-	-	-

	Undercarriage / Stick	LC	LC with blade
	m / ft in	mm / ft in	mm / ft in
Transport length		10,000 / 32'10"	10,800 / 35'5"
Transport height	2.50 / 8'2"		3,200 / 10'6"
	3.20 / 10'6"		3,250 / 10'8"
	3.70 / 12'2"		3,200 / 10'6"
Bucket		1.60 m <sup>3</sup> / 2.09 yd <sup>3</sup>	

# Backhoe bucket

with mono boom 6.20 m / 20'4"



## Digging envelope

without quick coupler		1	2	3
Stick length	m / ft in	2.50 / 8'2"	3.20 / 10' 6"	3.70 / 12' 2"
A Max. reach at ground level	m / ft in	10.18 / 33'5"	10.84 / 35' 7"	11.28 / 37'
B Max. digging depth	m / ft in	6.40 / 21'	7.10 / 23' 4"	7.60 / 24'11"
C Min. dumping height	m / ft in	3.49 / 11'5"	2.79 / 9' 2"	2.29 / 7' 6"
D Max. dumping height	m / ft in	7.36 / 24'2"	7.75 / 25' 5"	7.97 / 26' 2"
E Max. cutting height	m / ft in	10.59 / 34'9"	10.96 / 35'11"	11.18 / 36' 8"

## Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN / lbf	168 / 37,770	142 / 31,920	128 / 28,780
Bucket digging force (ISO 6015)	kN / lbf	204 / 45,860	204 / 45,860	204 / 45,860
Stick digging force (SAE J1179)	kN / lbf	160 / 35,970	136 / 30,570	123 / 27,650
Bucket digging force (SAE J1179)	kN / lbf	178 / 40,020	178 / 40,020	178 / 40,020

## Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 8.0 t / 17,640 lb, mono boom 6.20 m / 20'4", stick 3.20 m / 10'6" and bucket 1.60 m<sup>3</sup> / 2.09 yd<sup>3</sup> (1,110 kg / 2,430 lb).

Undercarriage		LC			
Pad width	mm / in	600 / 24"	700 / 28"	800 / 31"	900 / 35"
Weight	kg / lb	33,750 / 74,410	34,100 / 75,180	34,450 / 75,950	34,800 / 76,720
Ground pressure	kg/cm <sup>2</sup> / psi	0.66 / 9.4	0.57 / 8.1	0.50 / 7.1	0.45 / 6.4

Undercarriage		LC with blade			
Pad width	mm / in	600 / 24"	700 / 28"	800 / 31"	900 / 35"
Weight	kg / lb	36,150 / 79,700	36,500 / 80,470	36,850 / 81,240	37,200 / 82,010
Ground pressure	kg/cm <sup>2</sup> / psi	0.70 / 10.0	0.61 / 8.7	0.54 / 7.7	0.48 / 6.8



**Buckets** Machine stability per ISO 10567\* (75% of tipping capacity)

	Cutting width	Capacity ISO 7451	Weight <sup>3)</sup>	Weight <sup>4)</sup>	LC undercarriage (with track pads 800 mm / 31")						LC undercarriage with blade (with track pads 800 mm / 31")					
					Stick length (m / ft in)			Stick length (m / ft in)			Stick length (m / ft in)			Stick length (m / ft in)		
					without quick coupler			with quick coupler			without quick coupler			with quick coupler		
					2.50 8'2"	3.20 10'6"	3.70 12'2"	2.50 8'2"	3.20 10'6"	3.70 12'2"	2.50 8'2"	3.20 10'6"	3.70 12'2"	2.50 8'2"	3.20 10'6"	3.70 12'2"
STD <sup>1)</sup>	650	0.55	810	820	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	2'2"	0.72	1,790	1,810	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	1.00	870	930	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	3'5"	1.31	1,920	2,050	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,250	1.25	1,000	1,050	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	4'1"	1.63	2,210	2,320	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,400	1.45	1,070	1,130	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	4'7"	1.90	2,360	2,490	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,550	1.60	1,110	1,170	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	■
	5'1"	2.09	2,450	2,580	▲	▲	■	▲	▲	■	▲	▲	▲	▲	▲	■
	1,650	1.75	1,160	1,220	▲	■	▲	▲	▲	■	▲	▲	■	▲	■	▲
	5'5"	2.29	2,560	2,690	▲	■	▲	▲	▲	■	▲	▲	■	▲	■	▲
	1,550	1.85	1,170	1,230	▲	▲	■	▲	■	▲	▲	▲	▲	▲	■	▲
	5'1"	2.42	2,580	2,710	▲	▲	■	▲	■	▲	▲	▲	▲	▲	■	▲
	1,650	2.00	1,210	1,270	■	■	△	■	■	▲	△	▲	■	■	▲	■
5'5"	2.62	2,670	2,800	■	■	△	■	■	▲	△	▲	■	■	▲	■	
1,750	2.15	1,260	1,320	▲	■	△	▲	▲	△	△	■	▲	■	■	△	
5'9"	2.81	2,780	2,910	▲	■	△	▲	▲	△	△	■	▲	■	■	△	
HD <sup>2)</sup>	650	0.55	940	960	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	2'2"	0.72	2,070	2,120	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	1.00	1,000	1,050	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	3'5"	1.31	2,210	2,320	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,250	1.25	1,140	1,200	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	4'1"	1.63	2,510	2,650	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,400	1.45	1,230	1,290	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲
	4'7"	1.90	2,710	2,840	▲	▲	■	▲	▲	▲	■	▲	▲	▲	▲	▲
	1,550	1.60	1,290	1,350	▲	■	▲	▲	▲	■	▲	▲	■	▲	▲	■
	5'1"	2.09	2,840	2,980	▲	■	▲	▲	■	▲	▲	▲	■	▲	▲	■
	1,650	1.75	1,350	1,410	▲	▲	■	▲	■	▲	△	▲	■	▲	■	▲
	5'5"	2.29	2,980	3,110	▲	▲	■	▲	■	▲	△	▲	■	▲	■	▲
	1,550	1.85	1,340	1,400	▲	▲	■	▲	■	■	▲	▲	■	▲	▲	■
	5'1"	2.42	2,950	3,090	▲	▲	■	▲	■	■	▲	▲	■	▲	▲	■
	1,650	2.00	1,400	1,460	■	■	△	▲	▲	△	△	▲	■	■	▲	△
5'5"	2.62	3,090	3,220	■	■	△	▲	▲	△	△	▲	■	■	▲	△	
1,750	2.15	1,450	1,510	▲	▲	△	■	▲	-	-	■	■	▲	▲	△	
5'9"	2.81	3,200	3,330	▲	▲	△	■	▲	-	-	■	■	▲	▲	△	

\* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

<sup>1)</sup> Standard bucket with teeth Z 50

<sup>2)</sup> HD bucket with teeth Z 50

<sup>3)</sup> Bucket for direct mounting

<sup>4)</sup> Bucket for mounting to quick coupler

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m<sup>3</sup> / 3,400 lb/yd, ■ = ≤ 1.8 t/m<sup>3</sup> / 3,000 lb/yd<sup>3</sup>, ▲ = ≤ 1.65 t/m<sup>3</sup> / 2,800 lb/yd<sup>3</sup>, ■ = ≤ 1.5 t/m<sup>3</sup> / 2,500 lb/yd<sup>3</sup>, △ = ≤ 1.2 t/m<sup>3</sup> / 2,000 lb/yd<sup>3</sup>, - = not authorized

# Lift capacities

with mono boom 6.20 m / 20'4", counterweight 8.0 t / 17,640 lb and track pads 800 mm / 31"

## Stick 2.50 m / 8'2"

Under-carriage	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		9.0 m 30 ft		m ft in	
9.0 m t											9.6* 9.6*	4.9
30 ft lb											7.1 8.4*	6.6
7.5 m t					8.4 9.6*						16.1 18.7*	21'4"
25 ft lb					17.9 21.2*						5.5 8.1*	7.6
6.0 m t			11.7* 11.7*		8.2 9.9*	5.7 8.4					12.4 17.8*	24'10"
20 ft lb			25.3* 25.3*		17.7 21.6*						4.8 7.1	8.3
4.5 m t			12.2 13.9*		7.8 10.8*	5.6 8.3					10.6 15.7	27'
15 ft lb			26.3 29.8*		16.9 23.4*	11.0 17.8					4.4 6.6	8.6
3.0 m t			11.2 16.2*		7.4 11.4	5.4 8.1					9.8 14.6	28'1"
10 ft lb			24.1 35.0*		16.0 24.5	11.6 17.4					4.3 6.4	8.6
1.5 m t			10.6 13.0*		7.1 11.0	5.2 7.9					9.7 14.7	27'6"
5 ft lb			22.7 32.1*		15.3 23.6	11.2 17.0					4.8 7.3	7.9
0 m t			10.4 16.4*		6.9 10.8	5.1 7.8					10.6 16.1	25'8"
0 ft lb			22.4 35.6*		14.8 23.2	11.0 16.7					5.8 7.6*	7.0
-1.5 m t	10.9* 10.9*		10.4 14.7*		6.8 10.7	5.1 7.8					12.8 16.6*	22'8"
-5 ft lb	25.0* 25.0*		22.5 32.0*		14.8 23.1	11.0 16.7					5.8* 5.8*	5.5
-3.0 m t	13.8* 13.8*		10.6 12.0*		7.0 9.5*						12.6* 12.6*	17'8"
-10 ft lb	30.0* 30.0*		22.9 26.0*		15.1 20.3*							
-4.5 m t			7.5* 7.5*									
-15 ft lb			15.6* 15.6*									

## Stick 3.20 m / 10'6"

Under-carriage	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		9.0 m 30 ft		m ft in	
9.0 m t											7.0* 7.0*	6.0
30 ft lb											15.7* 15.7*	19'
7.5 m t					8.4 9.6*						5.9 6.3*	7.4
25 ft lb					18.3 21.2*						13.3 14.1*	24'
6.0 m t			11.7* 11.7*		8.3 9.0*	5.8 8.2*					4.8 6.1*	8.4
20 ft lb			25.3* 25.3*		18.0 19.6*	12.4 18.0*					10.7 13.5*	27'2"
4.5 m t			12.2 13.9*		8.0 10.0*	5.6 8.3					4.2 6.1*	8.9
15 ft lb			26.3 29.8*		17.2 21.6*	12.1 17.9					9.3 13.5*	29'2"
3.0 m t			11.2 16.2*		7.5 11.1*	5.4 8.1	4.1 6.1				3.9 5.9	9.2
10 ft lb			24.1 35.0*		16.1 24.1*	11.6 17.4	8.8 13.1				8.6 12.9	30'2"
1.5 m t			10.6 13.0*		10.6 16.7*	7.1 11.0	5.2 7.8				3.8 5.7	9.3
5 ft lb			22.7 32.1*		22.9 36.1*	15.2 23.7	11.1 16.9				8.4 12.6	30'5"
0 m t			10.4 16.4*		10.3 16.8*	6.8 10.7	5.0 7.7				3.9 5.9	9.0
0 ft lb			22.4 35.6*		22.1 36.4*	14.7 23.0	10.8 16.5				8.5 12.9	29'8"
-1.5 m t	10.4* 10.4*		10.2 15.6*		6.7 10.6	4.9 7.6					4.2 6.3	8.6
-5 ft lb	23.6* 23.6*		22.0 34.0*		14.4 22.8	10.7 16.4					9.2 14.0	28'
-3.0 m t	17.1* 17.1*		10.3 13.5*		6.7 10.4*	5.0 7.7					4.8 7.3*	7.7
-10 ft lb	37.3* 37.3*		22.3 29.2*		14.6 22.5*	10.8 16.5*					10.7 16.0*	25'4"
-4.5 m t	11.9* 11.9*		9.9* 9.9*		7.0 7.4*						6.3 6.4*	6.5
-15 ft lb	25.5* 25.5*		21.0* 21.0*		15.1 15.4*						13.9* 13.9*	21'

Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach \* Limited by hydr. capacity

The load values are quoted in tons (t) / lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 800 mm / 31" wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via \*). Without bucket cylinder, link and lever the lift capacities will increase by 410 kg / 900 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

### Stick 3.70 m / 12'2"

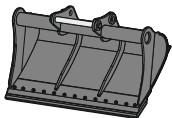
	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		9.0 m 30 ft		m ft in			
LC	9.0 m t										5.8*	5.8*	6.6	
	30 ft lb					14.7*	14.7*				12.9*	12.9*	21'4"	
	7.5 m t						5.9	6.5*			5.3	5.3*	8.0	
	25 ft lb						12.7	13.4*			11.8*	11.8*	25'11"	
	6.0 m t				7.7*	7.7*		5.9	7.5*			4.4	5.1*	8.8
	20 ft lb				16.9*	16.9*		12.6	16.3*			9.8	11.3*	28'10"
	4.5 m t		10.0*	10.0*	8.1	9.4*		5.7	8.2*	4.2	6.2	3.9	5.2*	9.4
	15 ft lb		21.3*	21.3*	17.4	20.3*		12.2	17.8*	9.0	13.4	8.6	11.4*	30'8"
	3.0 m t		11.7	14.1*	7.6	10.6*		5.4	8.1	4.1	6.1	3.6	5.3*	9.7
	10 ft lb		25.3	30.4*	16.3	23.0*		11.7	17.5	8.8	13.1	8.0	11.7*	31'8"
	1.5 m t		10.8	16.2*	7.1	11.1		5.2	7.8	3.9	6.0	3.5	5.3	9.7
	5 ft lb		23.3	35.0*	15.3	23.8		11.1	16.9	8.5	12.8	7.8	11.7	31'10"
	0 m t	6.1*	6.1*	10.3	16.8*	6.8	10.7	5.0	7.6	3.8	5.9	3.6	5.4	9.5
	0 ft lb	13.9*	13.9*	22.1	36.4*	14.6	23.0	10.7	16.4	8.3	12.6	7.9	12.0	31'1"
	-1.5 m t	10.1*	10.1*	10.1	16.1*	6.6	10.5	4.9	7.5	3.8	5.8	3.8	5.8	9.0
-5 ft lb	22.9*	22.9*	21.8	35.0*	14.3	22.6	10.5	16.2			8.4	12.8	29'7"	
-3.0 m t	15.4*	15.4*	10.2	14.3*	6.6	10.5	4.9	7.5			4.3	6.6	8.3	
-10 ft lb	34.9*	34.9*	21.9	31.0*	14.3	22.6	10.5	16.3			9.6	14.6	27'	
-4.5 m t	14.5*	14.5*	10.4	11.3*	6.8	8.6*					5.4	6.5*	7.1	
-15 ft lb	31.0*	31.0*	22.5	24.1*	14.7	18.2*					12.2	14.3*	23'1"	
LC Blade up	9.0 m t										5.8*	5.8*	6.6	
	30 ft lb					14.7*	14.7*				12.9*	12.9*	21'4"	
	7.5 m t						6.4	6.5*			5.3*	5.3*	8.0	
	25 ft lb						13.4*	13.4*			11.8*	11.8*	25'11"	
	6.0 m t				7.7*	7.7*		6.3	7.5*			4.7	5.1*	8.8
	20 ft lb				16.9*	16.9*		13.5	16.3*			10.6	11.3*	28'10"
	4.5 m t		10.0*	10.0*	8.7	9.4*		6.1	8.2*	4.5	6.3	4.2	5.2*	9.4
	15 ft lb		21.3*	21.3*	18.7	20.3*		13.1	17.8*	9.7	13.4*	9.4	11.4*	30'8"
	3.0 m t		12.6	14.1*	8.2	10.6*		5.8	8.2	4.4	6.1	3.9	5.3*	9.7
	10 ft lb		27.2	30.4*	17.6	23.0*		12.6	17.5	9.5	13.2	8.7	11.7*	31'8"
	1.5 m t		11.7	16.2*	7.7	11.1		5.6	7.9	4.3	6.0	3.8	5.3	9.7
	5 ft lb		25.1	35.0*	16.6	23.9		12.1	17.0	9.2	12.9	8.5	11.8	31'10"
	0 m t	6.1*	6.1*	11.2	16.8*	7.4	10.7	5.4	7.7	4.2	5.9	3.9	5.5	9.5
	0 ft lb	13.9*	13.9*	24.0	36.4*	15.9	23.1	11.7	16.5	9.0	12.7	8.6	12.0	31'1"
	-1.5 m t	10.1*	10.1*	11.0	16.1*	7.2	10.6	5.3	7.6	4.2	5.9	4.1	5.8	9.0
-5 ft lb	22.9*	22.9*	23.7	35.0*	15.6	22.7	11.4	16.3			9.2	12.9	29'7"	
-3.0 m t	15.4*	15.4*	11.1	14.3*	7.2	10.6	5.3	7.6			4.7	6.6	8.3	
-10 ft lb	34.9*	34.9*	23.8	31.0*	15.6	22.7	11.5	16.3			10.4	14.7	27'	
-4.5 m t	14.5*	14.5*	11.3*	11.3*	7.4	8.6*					5.9	6.5*	7.1	
-15 ft lb	31.0*	31.0*	24.1*	24.1*	15.9	18.2*					13.2	14.3*	23'1"	
LC Blade down	9.0 m t										5.8*	5.8*	6.6	
	30 ft lb					14.7*	14.7*				12.9*	12.9*	21'4"	
	7.5 m t						6.5*	6.5*			5.3*	5.3*	8.0	
	25 ft lb						13.4*	13.4*			11.8*	11.8*	25'11"	
	6.0 m t				7.7*	7.7*		6.5	7.5*			4.9	5.1*	8.8
	20 ft lb				16.9*	16.9*		14.0	16.3*			11.0	11.3*	28'10"
	4.5 m t		10.0*	10.0*	9.0	9.4*		6.3	8.2*	4.7	6.6*	4.4	5.2*	9.4
	15 ft lb		21.3*	21.3*	19.4	20.3*		13.6	17.8*	10.1	13.4*	9.7	11.4*	30'8"
	3.0 m t		13.2	14.1*	8.5	10.6*		6.1	8.8*	4.6	7.7*	4.1	5.3*	9.7
	10 ft lb		28.4	30.4*	18.3	23.0*		13.1	19.1*	9.9	16.5*	9.1	11.7*	31'8"
	1.5 m t		12.2	16.2*	8.0	11.7*		5.8	9.4*	4.5	7.9*	4.0	5.7*	9.7
	5 ft lb		26.3	35.0*	17.3	25.4*		12.6	20.3*	9.6	17.1*	8.8	12.5*	31'10"
	0 m t	6.1*	6.1*	11.7	16.8*	7.7	12.3*	5.6	9.6*	4.4	7.8*	4.1	6.3*	9.5
	0 ft lb	13.9*	13.9*	25.2	36.4*	16.6	26.6*	12.2	20.9*	9.4	17.0*	9.0	13.8*	31'1"
	-1.5 m t	10.1*	10.1*	11.5	16.1*	7.5	12.0*	5.5	9.4*	4.3	7.3*	4.3	7.2*	9.0
-5 ft lb	22.9*	22.9*	24.8	35.0*	16.2	26.1*	11.9	20.3*			9.5	16.0*	29'7"	
-3.0 m t	15.4*	15.4*	11.6	14.3*	7.5	10.9*	5.5	8.4*			4.9	7.1*	8.3	
-10 ft lb	34.9*	34.9*	25.0	31.0*	16.3	23.6*	12.0	18.0*			10.9	15.6*	27'	
-4.5 m t	14.5*	14.5*	11.3*	11.3*	7.7	8.6*					6.1	6.5*	7.1	
-15 ft lb	31.0*	31.0*	24.1*	24.1*	16.6	18.2*					13.8	14.3*	23'1"	

Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach \* Limited by hydr. capacity

The load values are quoted in tons (t) / lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 800 mm / 31" wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via \*). Without bucket cylinder, link and lever the lift capacities will increase by 410 kg / 900 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

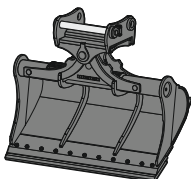
# Attachments



## Rigid ditch cleaning bucket

### GRL 05, for mounting to quick coupler SWA 66

Cutting width	mm / in	2,000 / 79"	2,400 / 95"	2,400 / 95"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	0.70 / 0.92	0.85 / 1.11	1.25 / 1.63
Weight	kg / lb	546 / 1,200	635 / 1,400	685 / 1,510



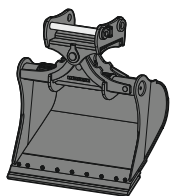
## Tiltable ditch cleaning bucket

### GRL 100, 2 x 50° tiltable, for direct mounting

Cutting width	mm / in	2,000 / 79"	2,000 / 79"	2,200 / 87"	2,400 / 95"	2,400 / 95"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	1.20 / 1.57	1.45 / 1.90	1.65 / 2.16	0.85 / 1.11	1.45 / 1.90
Weight	kg / lb	1,520 / 3,350	1,600 / 3,530	1,680 / 3,700	1,475 / 3,250	1,620 / 3,570

### GRL 100, 2 x 50° tiltable, for mounting to quick coupler SWA 66

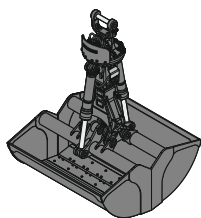
Cutting width	mm / in	2,000 / 79"	2,000 / 79"	2,200 / 87"	2,400 / 95"	2,400 / 95"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	1.20 / 1.57	1.45 / 1.90	1.65 / 2.16	0.85 / 1.11	1.45 / 1.90
Weight	kg / lb	1,520 / 3,350	1,600 / 3,530	1,680 / 3,700	1,475 / 3,250	1,620 / 3,570



## Tilt bucket

### SL 100, 2 x 50° tiltable, for mounting to quick coupler SWA 66

Cutting width	mm / in	1,600 / 63"	1,600 / 63"	1,700 / 67"	1,800 / 71"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	1.45 / 1.90	1.75 / 2.29	1.85 / 2.42	1.60 / 2.09
Weight	kg / lb	1,520 / 3,350	1,635 / 3,610	1,695 / 3,740	1,620 / 3,570
HD version				X	



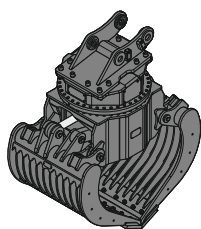
## Clamshell grab

### GMZ 30, clamshell buckets, for mounting to quick coupler SWA 48

Cutting width	mm / in	600 / 24"	800 / 31"	1,000 / 39"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	0.38 / 0.50	0.52 / 0.68	0.65 / 0.85
Weight	kg / lb	1,025 / 2,260	1,110 / 2,450	1,190 / 2,620

### GMZ 80, clamshell buckets, for mounting to quick coupler SWA 66

Cutting width	mm / in	1,200 / 47"	1,400 / 55"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	1.40 / 1.83	1.60 / 2.09
Weight	kg / lb	2,376 / 5,240	2,486 / 5,480



## Sorting grab

		perforated		ribbed		closed		stone tong	
<b>SG 30, for direct mounting</b>									
Cutting width	mm / in	1,000 / 39"	1,200 / 47"	1,400 / 55"	1,000 / 39"	1,200 / 47"	1,400 / 55"	1,000 / 39"	1,200 / 47"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	0.85 / 1.11	1.00 / 1.31	1.15 / 1.50	0.75 / 0.98	0.90 / 1.18	1.05 / 1.37	0.85 / 1.11	1.00 / 1.31
Weight	kg / lb	1,700 / 3,750	1,570 / 3,460	1,850 / 4,080	1,775 / 3,910	1,885 / 4,160	1,990 / 4,390	1,730 / 3,810	1,810 / 3,990
<b>SG 30, for mounting to quick coupler SWA 48</b>									
Cutting width	mm / in	1,000 / 39"	1,200 / 47"	1,400 / 55"	1,000 / 39"	1,200 / 47"	1,400 / 55"	1,000 / 39"	1,200 / 47"
Capacity	m <sup>3</sup> / yd <sup>3</sup>	0.85 / 1.11	1.00 / 1.31	1.15 / 1.50	0.75 / 0.98	0.90 / 1.18	1.05 / 1.37	0.85 / 1.11	1.00 / 1.31
Weight	kg / lb	1,700 / 3,750	1,570 / 3,460	1,850 / 4,080	1,775 / 3,910	1,885 / 4,160	1,990 / 4,390	1,730 / 3,810	1,810 / 3,990
<b>SG 40, for mounting to quick coupler SWA 48 and SWA 66</b>									
Cutting width	mm / in	1,100 / 43"	1,300 / 51"	1,100 / 43"	1,300 / 51"				
Capacity	m <sup>3</sup> / yd <sup>3</sup>	1.30 / 1.70	1.60 / 2.09	1.10 / 1.44	1.40 / 1.83				
Weight	kg / lb	2,230 / 4,920	2,800 / 6,170	2,320 / 5,120	2,900 / 6,390				

# Serial equipment

## Undercarriage

Lashing eyes  
Sprocket double-toothed  
Track and carrier rollers, sealed and lifetime-lubricated

## Uppercarriage

Anti-skid surfaces  
Automatic swing brake lock  
DEF tank filling indicator  
DEF tank lockable access hatch  
Engine hood with gas spring opening  
Filters accessible from ground level  
Handrails  
Hydraulic oil level, visible from ground level  
Lockable fuel tank cap  
Lockable service doors  
Main switch, manual, lockable  
Protection grid on radiator fan  
Sound insulation  
Swing drive gearbox oil level, visible from the cab  
Swing-out radiators  
Windshield washer fluid tank

## Hydraulic system

Filter with integrated fine filters  
Hydraulic pressure measuring ports  
Liebherr Positive Control system with 2 independent circuits  
Magnetic rod  
Pressure accumulator for controlled lowering of equipment with engine turned off

## Engine

Air filter with automatic dust ejector  
Automatic engine idling / speed increase, controlled via joystick sensors  
Common-Rail injection system  
Exhaust gas after-treatment system - DOC + SCR  
Fixed geometry turbocharger  
Fuel fine filter  
Fuel pre-filter and water separator  
Fuel priming pump  
Intercooler  
Power Pack EU Stage V  
Stepless adjustable engine speed

## Cab

7" multifunction color touchscreen  
Air conditioning, automatic, tri-zone, controlled via display  
Armrests adjustable in length, height and inclination  
Bottle holder  
Cab air filters housing, accessible from ground level  
Cab door sliding windows  
Cigarette lighter  
Coat hook  
DEF consumption on touchscreen  
DEF level on touchscreen  
Electric socket in cabin (12 V)  
Electric socket in cabin (24 V)  
Emergency hammer  
Engine oil level on touchscreen  
Fuel consumption on touchscreen  
Fuel level on touchscreen  
Hydraulic oil level on touchscreen  
Interior lighting  
Laminated right hand side window  
LiDAT Plus (Liebherr data transfer system)\*  
Mechanical hour meters, visible from ground level  
Movement priority between swing and boom, adjustable via touchscreen  
Movement priority for stick-in, adjustable via touchscreen  
Rain hood over front window opening  
Rearview mirror  
Rear view monitoring camera  
Rear window emergency exit  
Roll-down sun blinds for windscreen and roof window  
ROPS safety cab structure (ISO 12117-2)  
Rubber floor mat, fixed on floor and removable  
Shortcut button on joystick configurable  
Storage box  
Storage nets  
Storage spaces  
Tilttable console left  
Tinted windows  
Visco-elastic damping  
Windscreen wiper and washer  
Work mode selector

## Equipment

Boom cylinders regeneration  
Pipe fracture safety valve for stick cylinder  
Pipe fracture safety valves for boom cylinders  
Pivot points made of cast steel  
SAE split flanges on high pressure lines  
Stick cylinder regeneration

\* optionally extendable after one year

# Equipment standard / option

## Undercarriage

Chain guide 1 piece	●
Chain guide 3 pieces	+
Chain guide 4 pieces	+
Cover and base plate for undercarriage center section	●
Dozer and stabilizer blade 3,000 mm / <b>9'10"</b>	+
Dozer and stabilizer blade 3,350 mm / <b>11'</b>	+
Reinforced cover and base plate for undercarriage center section	+
Special painting	+
Steps	●
Steps wide	+
Track pads triple grouser 600 mm / <b>24"</b> / 700 mm / <b>28"</b> / 900 mm / <b>35"</b>	+
Track pads triple grouser 800 mm / <b>31"</b>	●
Track pads triple grouser reinforced 600 mm / <b>24"</b> / 700 mm / <b>28"</b> / 800 mm / <b>31"</b>	+
Tracks, sealed and greased	●
Tracks, sealed and greased, reinforced	+
Undercarriage LC	●
Undercarriage storage compartment	+

## Uppercarriage

Air pre-filter with cyclonical dust trap	+
Centralized lubrication system (automatic)	●
Centralized lubrication system (manual)	+
Counterweight standard 8.0 t / <b>17,640 lb</b>	●
Electric socket on uppercarriage (24 V)	+
Extended tool set including tool box	+
Fuel anti-theft protection	+
Headlight on uppercarriage, front left, LED+, 1 piece, protection included	+ )
Headlight on uppercarriage, front right, LED, 1 piece, protection included	● )
Headlight on uppercarriage, front right, LED+, 1 piece, protection included	+ )
Headlight on uppercarriage, lateral right, LED+, 1 piece	+ )
Headlights on uppercarriage, rear, LED+, 2 pieces	+ )
Lighting for tank area	+ )
Lighting for uppercarriage access	+ )
Pre-heating system for fuel	+
Reflective warning stickers	+
Reversible fan drive	+
Rotating beacons on uppercarriage, rear, LED, 2 pieces	+
Skyview 360°	+
Special painting	+
Tank refilling pump fuel	+
Tool set including storage case	●
Uppercarriage bottom protection	+

## Hydraulic system

Bypass filter for hydraulic oil	+
High pressure circuit bypass	+
High pressure circuit flow summation	+
Liebherr hydraulic oil	●
Liebherr hydraulic oil, adapted for extreme climate conditions	+
Liebherr hydraulic oil, biodegradable	+

## Engine

Automatic engine shutdown after idling	+
Engine shut-down with overrun	+
Lighting for engine compartment	+ )



## Cab

3" seat belt with retractor, orange color	●
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Coming / Leaving Home	+ <sup>1)</sup>
Cool box (12 V)	+
Dark tinted windows	+
Electronic immobilizer	+
Emergency stop in cab	+
FGPS front guard	+
FGPS front guard tiltable	+
Filter for hydraulic hammer return flow	+
Fire extinguisher	+
First-aid box	+
Footrest	+
FOPS top guard	+
FOPS top guard flat	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	● <sup>1)</sup>
Headlights on cab, front, LED+, 2 pieces	+ <sup>1)</sup>
Headlights on cab roof, front, LED+, 2 pieces	+ <sup>1)</sup>
High pressure circuit switchable on pedals or mini-joystick	+
High pressure circuit with Tool Control (20 attachment adjustments on display)	+
Impact resistant one-piece windscreen	+
Impact resistant roof window	+
Integral protection guard	+
Laminated roof window	●
Lightbar on cabin	+
Lighting for cabin access	+ <sup>1)</sup>
Luminosity control (LED+ headlights)	+ <sup>1)</sup>
Medium pressure circuit	+
Mini-joysticks proportional	●
Movement restriction for boom	+
Movement restriction for stick	+
Operator seat Comfort	●
Operator seat Premium	+
Overload warning system	+
Preparation for machine guidance system	+
Preparation for tiltrotator	+
Radio Comfort	+
Radio pre-installation	●
Retractable laminated two-piece windscreen	●
Right hand side view monitoring camera	●
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Seat belt reminder	+
Special painting	+
Sun visor	+
Switch between high pressure and bucket cylinder controls	+
Windscreen bottom protection grid	+



## Equipment

Bucket cylinder rod protection	+
Centralized lubrication extended for connecting link	+
Grapple hydraulic lines (bucket cylinder inactive)	+
Headlight guard on boom, right	+
Headlight guards on boom, right and left	+
Headlight on boom, left, LED+, 1 piece	+ <sup>1)</sup>
Headlight on boom, right, LED, 1 piece	● <sup>1)</sup>
Headlight on boom, right, LED+, 1 piece	+ <sup>1)</sup>
Headlight on stick, bottom, LED+, 1 piece	+ <sup>1)</sup>
Leak oil line for attachment	+
Lifting eye on stick 16.0 t / <b>35,270 lb</b>	+
LIKUFIX electric signal plug	+
LIKUFIX for quick coupler SWA 48 hydraulic	+
LIKUFIX for quick coupler SWA 66 hydraulic	+
Load holding valve for bucket cylinder	+
Lubrication hoses protection on stick	+
Mono boom 6.20 m / <b>20'4"</b>	●
Quick coupler SWA 48 hydraulic	+
Quick coupler SWA 48 mechanical	+
Quick coupler SWA 66 hydraulic	+
Quick coupler SWA 66 mechanical	+
Security for hoist cylinders	+
Special painting	+
Stick 2.50 m / <b>8'2"</b>	+
Stick 3.20 m / <b>10'6"</b>	+
Stick 3.70 m / <b>12'2"</b>	+
Stick bottom protection	+
Tool Management	+

● = Standard, + = Option

<sup>1)</sup> Equipment not individually available, but only as predefined packages

Non-exhaustive list, please contact us for further information.

Options and / or special equipment, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr in order to retain warranty.

# The Liebherr Group



## Global and independent: more than 70 years of success

Liebherr was founded in 1949. With the development of the world's first mobile tower crane, Hans Liebherr laid the foundations of a successful family business which today comprises more than 140 companies on all continent and employs nearly 50,000 people. The parent company of the Group is Liebherr-International AG in Bulle (Switzerland), whose associates are exclusively members of the Liebherr family.

## Technology leadership and pioneering spirit

Liebherr regards itself as a pioneer. This spirit has enabled the company to make a decisive contribution to the technological history of many industries. Today, employees around the world still share the courage of the company founder to take new paths. They are all united by a passion for technology and fascinating products and the determination to perform outstanding work for their customers.

## Widely diversified product portfolio

Not only is Liebherr one of the biggest construction equipment manufacturers in the world, it also provides high-quality, user-oriented products and services in a wide range of other areas. The product portfolio includes the segments earthmoving, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigeration and freezing, components and hotels.

## Customized solutions and maximum customer benefit

Liebherr solutions are characterized by maximum precision, outstanding implementation and exceptional longevity. Its mastery of key technologies enables the company to offer its customers customized solutions. For Liebherr, customer focus does not end with the product; it also encompasses a wide range of services that make a real difference.

[www.liebherr.us](http://www.liebherr.us)

## WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with exhaust system.
- Do not idle the engine except as necessary.

For more information go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).

## WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

## Liebherr USA, Co.

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